



NOTES

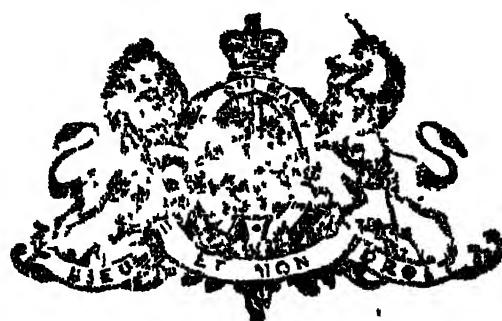
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VACCINATION IN THE PUNJAB

FOR THE YEAR 1915-16

BY

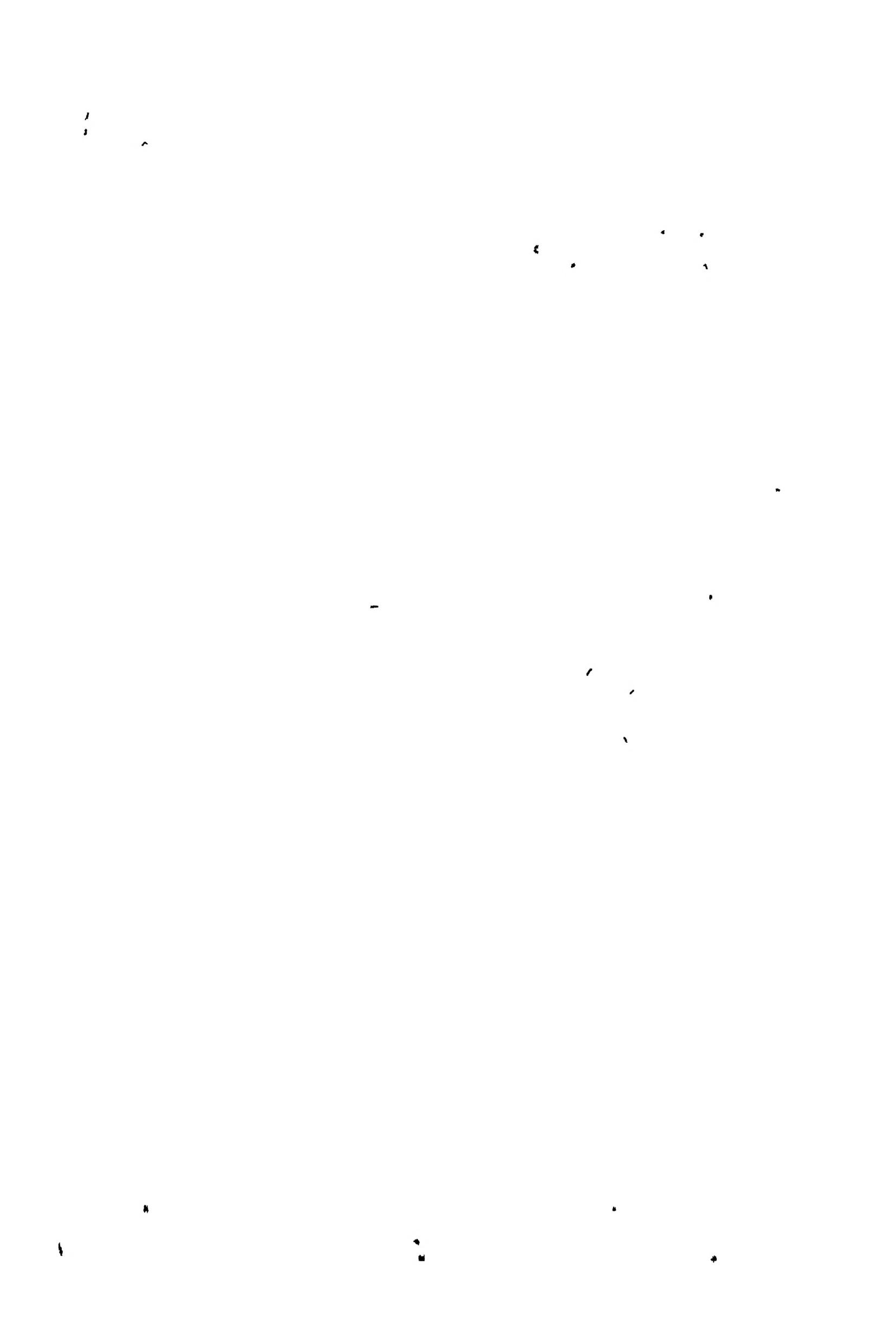
THE HON'BLE COLONEL H. HENDLEY, M.D., K.H.S., I.M.S.,
Offg. Sanitary Commissioner, Punjab.

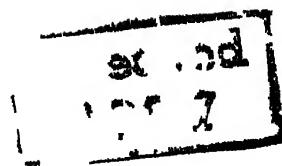


Lahore:

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1916. *





**NOTES ON VACCINATION IN THE
PUNJAB FOR THE YEAR 1915-16.**

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ON

VACCINATION IN THE PUNJAB

FOR THE YEAR 1915-16

BY

THE HON'BLE COLONEL H. HENDLEY, M.D., K.H.S., I.M.S.,

Offg. Sanitary Commissioner, Punjab.



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1916.



(The text of these notes is limited to 4 pages.)

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FROM

THE HON'BLE MR. O. F. LUMSDEN, I.C.S.,

Financial Secretary to Government, Punjab,

TO

THE SECRETARY TO THE GOVERNMENT OF INDIA,
DEPARTMENT OF EDUCATION.

Dated Lahore 21st July 1916.

Home.
Sanitary.

SIR,

I AM directed to forward, for the information of the Government of India, a copy of the Sanitary Commissioner's Notes on Vaccination in the Punjab during the year 1915-16. The death-rate from small-pox in 1915 was lower than in any year since the introduction of the system of registration of deaths; in these circumstances the increase of over 20,000 in the number of re-vaccinations performed during the year under review reflects credit on the vaccination establishment. The number of primary vaccinations was also most satisfactory, for though the actual number of such operations was less by 2,025 than in the previous year, the proportion of the children available vaccinated was greater and amounted to over 99 per cent.

2. The percentage of successful re-vaccinations was 2·6 better than in the previous year, but there was a slight falling off in the ratio of success obtained in primary operations, which is attributed to the effect on some of the lymph supplied of the excessive heat in certain districts. There was a very considerable increase—from 8,489 to 15,049—in the number of vaccinations of infants under one year of age performed by the special staff. The disproportion between the number of males and number of females re-vaccinated continues to be pronounced, males accounting for nearly 69 per cent. of the total number of operations. It has, however, to be borne in mind that 55 per cent. of the population are males so that the disproportion is not so great as it would appear at first sight.

3. During the year under review the Vaccination Act was extended to four municipalities and has since been extended to five others. There are, however, still about 70 towns out of 100 in which the Act might be enforced, that have so far failed to adopt this simple measure for the protection of infants, and His Honour is disappointed to find that so poor a response has been made by municipalities to the appeal which was addressed to them last year. In the Hissar, Hoshiarpur and Montgomery Districts the Act is not in force at all, while in the Jullundur, Ludhiana, Lahore, Amritsar, Gurdaspur, Siālkot, Gujrānwāla and Dera Ghāzi Khan Districts it has been adopted in only one municipality each.

4. The total number of vaccinators employed in the province was 274, and of these 63 attended the classes held during the year at the Vaccine Institute, Lahore, for instruction in the technique of vaccination and principles of elementary hygiene.

I have the honour to be,

SIR,

Your most obedient Servant,

O. F. LUMSDEN,

Financial Secretary to Government, Punjab.

No. 3001.

FROM

THE HON'BLE COLONEL H. HENDLEY, M.D., K.H.S., I.M.S.,

Offg. Sanitary Commissioner, Punjab,

To

THE HON'BLE MR. O. F. LUMSDEN, I.C.S.,

Financial Secretary to Government, Punjab.

Dated Lahore, the 1st July 1916.

SIR,

I HAVE the honour to forward, for the information of His Honour the Lieutenant-Governor of the Punjab, the Annual Vaccination Statements for the year 1915-16.

2. The charge of the Vaccination Department was held by Colonel C. J. Bamber, I M S., from the commencement of the year till the forenoon of the 12th July, when I relieved him and held additional charge for the remainder of the year. The appointment of Deputy Sanitary Commissioner, was held throughout the year by Major W. H. C. Forster, I.M.S., in addition to his duties as Professor of Pathology at the Lahore Medical College, and Dr. K. A. Rahman, M. B. Ch. B. (Edin.), D. P. H. (London) held the post of Additional Deputy Sanitary Commissioner. The appointment of Superintendent, Punjab Vaccine Institute, was held from the commencement of the year till May 17th by Assistant Surgeon Maharaj Krishna, Kapur, by Major Forster from May 18th to August 5th, from August 6th to February 29th by Assistant Surgeon Pars Ram, when he was relieved by Assistant Surgeon Prem Nath, Suri, who held the post till the end of the year.

3. The strength of the Vaccination Establishment was 5 Divisional Inspectors, 30 Superintendents of Vaccination, the same as last year, and 274 vaccinators or 4 more than in the previous year. The increase is due to the entertainment of one vaccinator for both the towns of Shahabad and Thanesar in the Karnal Listrict, and one each in Simla and Jagraon municipalities and Jullundur Cantonment.

4. In 1915-16 the cost of the Department amounted to Rs. 1,40,964, a decrease of Rs. 5,933 compared with the figures for the previous year. This is due entirely to the decrease in the pay and travelling allowance of the Deputy Sanitary Commissioner, owing to the absence of the permanent incumbent on Military duty.

5. The average cost of each successful vaccination was Re. 0-3-1 as compared with Re. 0-3-3 in the previous year. The decrease in the average cost of a successful case is also due to the reason stated in the preceding paragraph. If, however, the sum of Rs. 19,607, which has been credited to Government on account of the cost of vaccine sold, be deducted from the total expenditure, the average cost works out to Re. 0-2-8 for the year under report as compared with Re. 0-2-9 in the previous year.

6. The amount of work done in 1915-16 was satisfactory, the total number of operations performed by all establishments amounting to 855,048 or nearly two per cent. in excess of the figures for the previous year; of this number 669,236 were primary and 18,812 re-vaccinations as compared with 671,261 and 165,378, respectively, in the previous year. The slight decrease of 2,025 in primary vaccination is manifestly due to the diminution in the number of children available for the operation as compared with the previous year. In 1915-16 the number of such children was 671,556 as against 696,453 in 1914-15. The increase of 20,434 in re-vaccination is very satisfactory and reflects credit on the establishment.

7. There was a total of 47,272 operations performed under the house-to-house system in 11 districts, viz., 433 in Muzaffargarh, 493 in Jhelum 600 in Ferozepore, 910 in Lyallpur, 1,140 in Karnal, 1,769 in Shahpur, 1,793 in Montgomery, 1,832 in Jhang, 2,841 in Hissar and 8,400 in Lahore, including 7,200

Administration.

Strength of vaccination establishment — Statement No. II.

Cost of the department — Statement No. II.

Cost of each successful case.—Statement No. II.

Total operations done by all establishments — Statement No. I.

House-to-house vaccination.

in the Lahore Municipality and the largest number 27,061 (2,087 in 5 towns and 24,974 in 1,150 villages) in the Gurdaspur District.

District Staff.—
Statement No. I.

8. The total number of operations performed by the district staff in 1915-16 was 796,572 as against 7,2,988 in the previous year, an increase of 13,584. Compared with the previous year there was a decrease of 8,251 primary operations and an increase of 21,835 re-vaccinations. In the case of primary operations 13 districts recorded an excess and 15 a decrease as compared with the figures for the previous year. The diminution is partly due to the fact that from all those districts which showed a reduction of more than one thousand except Montgomery vaccinators were sent for training to the Punjab Vaccine Institute at Lahore and they were replaced by vaccinators from the Special Staff, Punjab, whose work is shown separately, and partly to the decrease in the number of children. The decrease in the Montgomery District is not satisfactorily explained by the Civil Surgeon, but is probably due also to the diminution in the number of births in that district. The percentage of successful primary vaccination of children under one year of age to the total number available was 73·41, the same as in the previous year, and 72·98, the average for the previous five years. This satisfactory result is an indication of the good work of the district vaccination staff. The increase of 21,835 re-vaccinations compared with the figures for the previous year is very satisfactory. This increase was noticed in 19 districts, and was well marked (5,686) in Karnal, (4,526) in Ambala, (4,093) in Gujranwala, (3,053) in Rothak, (2,366) in Muzaffargarh, (2,297) in Amritsar and (2,008) in Hissar districts; in all others it varied between 1,491 in Ludhiana and 5 in Shahpur. The decrease in the 9 districts of Kangra, Rawalpindi, Jullundur, Multan, Attock, Sialkot, Gurdaspur, Dera Ghazi Khan and Simla is principally due to the difference in the population of the areas selected for re-vaccination. The percentage of males and females to total number of re-vaccinations was nearly the same as last year, viz., 68·77 in the case of males and 31·23 in that of females as against 68·55 and 31·45 in 1914-15. The percentage of success in primary vaccination was 96·45 as against 97·15 in the previous year, while in the case of re-vaccination it was 73·38 as compared with 70·78 in the previous year. The slight decrease in the percentage of success in primary cases is due to the fact that vaccine lymph supplied from the Murree Depôt early in the season did not produce as good results as it should owing to the excessive heat in certain districts in the plains. The percentage of vaccinations in which results were not known to the total number in 1915-16 was 4·85 in the case of primary and 18·20 in that of re-vaccination as compared with 4·34 and 18·48, respectively, in the year preceding.

Ratio of persons successfully vaccinated per 1,000 of population—Statement No I.

Special Staff.—Statement No I and its appendix.

Cantonment Staff.
Annual Form No. I
and its appendix.

9. The number of persons successfully vaccinated by the district staff was 35·05 per mille of population as against 34·98 in the previous year.

10. The vaccinators of the Special Staff, Punjab, performed 28,733 primary operations and 18,270 re-vaccinations during the year as compared with 23,328 and 23,738 in the year preceding. This shows an increase of 5,405 or over 23 per cent. in the number of primary vaccinations and a diminution of 5,468 or 23 per cent. in re-vaccinations as compared with the figures for the year preceding. The percentage of success was 97·36 in the case of primary operations and 72·67 in that of re-vaccination as against 96·25 and 70·16, respectively, in 1914-15.

11. The work done in cantonments which entertain their own vaccinators, amounted to 4,459 primary vaccinations and 4,443 re-vaccinations, an increase of 681 in the case of the former and of 3,125 in the latter over the corresponding figures for last year. The largest number of persons vaccinated was 3,680 in Ambala, 2,869 in Lahore, 890 in Rawalpindi and 813 in Ferozepore cantonments.

The percentage of success was 98·48 in primary and 70·33 in re-vaccination as against 99·03 and 70·04 in the previous year and the ratio per cent. of unknown cases to total cases in the case of primary was 2·69 and re-vaccination 9·88 as compared with 1·64 and 4·02 in 1914-15.

12. As compared with last year there was an increase of 137 primary and 942 re-vaccinations performed at dispensaries with a percentage of success of 99.73 in primary and 73.28 in re-vaccination as against 97.07 and 83.96 in 1914-15. The largest number of operations (1,173) was performed at dispensaries in the Ferozepore District.

Dispensary staff.—
Statement No. III.

13. During my inspection of Amritsar City and Gurdaspur I saw some children who were recently vaccinated and found that the operation had been properly carried out. The Deputy Sanitary Commissioner visited 88 towns and villages inspecting 799 primary and 679 re-vaccinations. The ratio of success in primary operations was 95.99 and in re-vaccinations 60.68 per cent. During his tours of inspection in Simla Hill States from June to September he approached some of the State authorities and tried to convince them of the necessity for bringing up children under 3 or 4 years of age for vaccination owing to their susceptibility to small-pox and of their danger to others, with some success. The Additional Deputy Sanitary Commissioner inspected 10,544 vaccinations in 25 towns and 543 villages of the Jhelum, Rohtak, Karnal, Shahpur, Attock, Sialkot, Hoshiarpur and Ambala districts, the results in most of the districts being very encouraging. Of the total number inspected 8,968 were primary and 1,676 re-vaccinations with a percentage of success of 91.28 in the case of the former and 73.57 in that of the latter. Civil Surgeons and Health Officers made 58,692 inspections of primary vaccination and 9,546 of re-vaccination, Divisional Inspectors 100,256 and 16,092 and Superintendents of Vaccination 450,390 and 112,511, respectively. The percentage of success verified by the Civil Surgeons and Health Officers was 92.74 in primary and 69.89 in re-vaccination, as compared with 92.99 and 58.59 and 95.00 and 71.71 found by Divisional Inspectors and Superintendents, respectively. The rates of success reported by vaccinators were 96.45 in primary and 73.38 in re-vaccination as against 97.13 and 70.68 in the year preceding.

Inspection work.—
Statement No. V.

14. The number of primary vaccinations and re-vaccinations performed in 1915-16 in the Native States which entertain their own vaccinators was as follows:—Patiala 50,055 and 28,688, Bahawalpur 14,127 and 120, Kapurthala 4,466 and 62, Faridkot 5,503 and 132, in Jind 10,221, and in Nabha 283 primary vaccinations. There was an increase in the total number of persons vaccinated in Patiala, Kapurthala and Faridkot and a slight decrease in other States as compared with the work for the previous year. The percentage of successful primary vaccination was 98.45 in Patiala, 96.67 in Bahawalpur, 99.57 in Kapurthala, 93.16 in Faridkot, 95.83 in Jind and 97.38 in Nabha. In the case of re-vaccination the percentage of success varied between 33.00 in Faridkot and 75.47 in Bahawalpur. In Patiala where the largest number of re-vaccinations were performed the rate was 77.15 per cent.

Vaccination in large
Native States.

15. Eighty-four per cent. of the total number of children under one year of age available for operation in 1915-16 were successfully vaccinated in the towns in which the Vaccination Act is in force as against 66 per cent. in those towns in which it was not in force, the corresponding rates for the previous year being 79 and 67 per cent. In the three largest towns of the province the percentage of successfully vaccinated children was 92 in Lahore, 86 in Amritsar and 79 in Multan as compared with 89, 76 and 86, respectively, in 1914-15. Of the 95 persons in Rawalpindi who were prosecuted for not submitting their children for vaccination, 29 were punished and Rs. 63.9-0 realized as fines.

Vaccination in mu-
nicipal towns.

In 1915-16 the Vaccination Act, XIII of 1890, was extended to the municipal towns of Palwal in the Gurgaon, Sargodha and Miani in the Shahpur and Shujabad in the Multan districts. In Sialkot town vaccination operations were performed during the year under the provisions of the Vaccination Act and the question of the extension of the Act to the municipalities of Gojra, Sahiwal, Bhakkar, Dinga and Kunjah was under the consideration of Government at the close of the year under report.

Punjab
Inst. Inst.

Vaccine 16. The Institute supplied vaccine lymph to all the districts in the Province, to Native States in the Punjab, to the North-West Frontier Province Jammu and Kashmir States, and Military Medical Officers, etc. The total number of tubes issued was 33,894 as compared with 31,726 in the previous year as detailed below—

		1914-15.	1915-16.
Civil Surgeons	...	20,187	21,964
Military Medical Officers	...	627	895
Native States	...	2,559	2,634
North-West Frontier Province	...	3,403	3,193
Special Staff	...	1,012	637
Out of Punjab	...	3,938	5,171
Total	...	31,726	33,894

In addition to this the Vaccine Institute supplied 5,100 capillary, 20 half gramme and 780 gramme tubes to the Military authorities for use out of India.

Out of the 33,894 tubes issued during 1915-16 results were received in the case of 30,821 tubes, showing that 961,397 primary and 210,585 re-vaccinations were performed with an insertion success of 96·06 per cent. in primary and 68·97 per cent. in re-vaccination as against 96·10 and 63·44, respectively, in the previous year.

Complaints were received from the Karnal District regarding the inferior quality of the lymph supplied by the Vaccine Institute, Punjab, but a comparison of the results obtained with the same lymph in other districts showed that it was capable of giving excellent results if properly used. The Additional Deputy Sanitary Commissioner was deputed to investigate, he came to the conclusion that these results were due partly to the deterioration of the vaccine at the commencement of the season on account of excessive heat and partly to want of technique and care of lymph on the part of vaccinators. This, it is hoped, will be obviated in the future when all vaccinators have undergone a course of training at the Institute and if vaccination operations are not commenced earlier than the 1st November.

Training of vaccinators

17. In accordance with the scheme for the training of vaccinators in the Punjab, in the technique of vaccination and the principles of elementary hygiene which was sanctioned by Government, nine classes were held during the year commencing from 1st November. Each course of instruction which lasted a fortnight was held at the Vaccine Institute, Lahore. The following detail shows the number of vaccinators trained from districts and the Delhi Province :—

(1) Lahore	(2) Amritsar,	(3) Gurdaspur,	
(4) Jullundur,	(5) Ferozepore,	(6) Nowhaipuri,	= 35
(7) Kangra	Five vaccinators from each		
(8) Ludhiana,	(9) Sialkot,	(10) Gujranwala,	
(11) Karnal,	(12) Gurgaon	(13) Ambala,	
(14) Hissar.	Four vaccinators from each	...	= 28
(15) Delhi Province	...	...	6
Total	...	...	69

Vaccinators from the Special Staff were deputed to work in place of men from the district staff undergoing training

I have the honour to be,

SIR,

Your most obedient servant,

H. HENDLEY, COLONEL, I. M. S.,

Offg. Sanitary Commissioner, Punjab.

A.—VACCINE DEPARTMENT.

**STATEMENT No I—SHOWING PARTICULARS OF VACCINATION IN THE
PUNJAB PROVINCE DURING THE YEAR 1915-16.**

A.—VACCINE

STATEMENT No. I.—SHOWING PARTICULARS OF VACCINATION

Serial No.	Districts.	Population of districts according to Census of 1911.	Average population per square mile.	Average number of vaccinators employed throughout the year.	TOTAL NUMBER OF PERSONS VACCINATED.			Average number of persons vaccinated by each vaccinator.	PRIMARY VACCINATION.			
					Males.	Females.	Total.		Total.	Under one year.	One year and under six years.	Total of all ages.
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Hissar	804,889	154	12	17,887	15,109	32,496	2,709·00	29,756	21,768	4,143	25,982
2	Rohtak	714,884	818	9	20,287	16,026	36,268	4,029·22	30,268	21,754	3,816	25,098
3	Gurgaon	729,167	822	10	16,858	13,309	29,667	2,986·70	25,008	15,357	4,352	19,758
4	Karnal	799,787	254	12	21,111	16,295	37,406	3,117·17	29,489	23,117	4,568	27,981
5	Ambala	632,553	842	12	16,850	11,924	29,274	2,356·17	19,656	14,296	3,060	17,444
6	Simla	34,970	846	2	423	280	652	326·00	497	310	57	461
7	Kangra	766,686	77	7	16,122	16,247	32,869	4,624·14	22,518	14,221	4,891	19,282
8	Hoshiarpur	918,589	409	11	18,822	14,187	33,009	3,000·82	28,237	17,696	6,107	28,906
9	Jullundur	787,956	551	10	16,632	12,878	29,508	2,980·80	28,326	17,753	1,424	19,193
10	Ludhiana	517,192	858	9	18,815	9,820	28,685	2,818·11	16,753	12,574	1,754	14,357
11	Ferozepore	933,499	218	10	16,672	14,656	31,828	8,132·80	30,977	24,434	2,598	29,762
12	Lahore	1,017,742	380	11	20,388	17,881	38,219	3,474·45	38,509	31,740	1,928	33,780
13	Amritsar	879,811	549	12	22,986	17,127	40,118	3,842·75	30,580	24,302	5,114	29,209
14	Gurdaspur	882,561	441	10	22,274	16,283	38,557	3,555·70	28,739	22,946	4,444	27,766
15	Sialkot	963,279	484	12	15,900	14,759	30,689	2,557·42	30,708	26,472	1,981	28,482
16	Gujranwala	928,419	226	11	24,296	18,825	42,621	8,874·64	31,438	24,258	4,144	28,704
17	Gujrat	745,684	864	10	14,050	11,742	25,792	2,579·20	28,824	19,772	2,183	21,922
18	Shampur	687,866	185	8	11,258	10,128	21,381	2,672·63	20,568	14,844	5,017	19,447
19	Jhelum	504,195	179	6	9,051	6,663	15,714	2,619·00	12,932	11,264	854	12,286
20	Rawalpindi	547,483	253	7	9,667	7,960	17,627	2,518·14	14,748	12,782	1,586	14,832
21	Attock	515,286	128	7	11,802	8,572	20,874	2,910·57	18,252	12,891	2,170	15,082
22	Mianwali	341,377	68	6	11,028	9,212	20,285	3,372·50	12,957	10,761	1,582	12,449
23	Montgomery	504,115	113	6	8,208	6,296	14,499	2,416·50	12,868	11,238	1,689	12,514
24	Lyallpur	888,895	268	9	18,867	16,175	34,542	8,888·00	32,209	27,857	3,142	31,094
25	Jhang	515,526	158	8	14,192	12,447	26,639	8,329·88	20,105	14,090	4,505	18,871
26	Multan	814,871	181	12	22,609	17,206	39,815	8,317·92	24,684	20,378	2,971	28,386
27	Muzaffargarh	569,461	94	7	17,528	18,119	30,647	4,831·29	17,514	14,178	2,171	16,713
28	Dera Ghazi Khan	499,860	94	6	11,164	8,465	19,629	3,271·50	14,853	10,784	2,286	13,271
Total of district staff		19,890,483	200	252	488,686	358,064	791,700	8,141·67	634,527	492,990	86,162	582,882
Total of special staff		...	...	14	27,618	19,880	46,998	8,357·00	28,783	15,049	8,628	26,802
Total of cantonment staff		175,949	...	8	6,741	2,161	8,902	1,112·75	4,459	2,902	1,245	4,273
GRAND TOTAL		19,566,432	200	274	472,095	374,605	847,600	8,093·43	(a) 667,719	510,941	96,035	(b) 612,007

NOTE.—(a) Difference between number of operations and number of persons
(b) These figures include 5,931 primary successful vaccinations of

SUM

		TOTAL NUMBER OF PERSONS VACCINATED.		TOTAL NUMBER OF OPERATIONS PERFORMED.		PERCENTAGE OF SUCCESSFUL CASES IN WHICH RESULTS WERE KNOWN.	
		Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.
By district, cantonment and special staff (Statement No. I)	...	662,842	184,758	667,719	184,758	96·50	78·22
By dispensary staff (Statement No. III)	...	1,517	1,054	1,517	1,054	99·73	78·23
By other agencies, if any	...	...	...	...	...	...	...
		662,842	184,758	667,719	184,758	96·51	78·12

DEPARTMENT.

IN THE PUNJAB PROVINCE DURING THE YEAR 1915-16.

Unknown.	RE-VACCINATION.			PERCENTAGE OF SUCCESSFUL CASES IN WHICH THE RESULTS WERE KNOWN.		Persons successfully vaccinated per 1,000 of population.	PERCENTAGE OF UNKNOWN CASES TO TOTAL CASES.		AVERAGE ANNUAL NUMBER OF PERSONS SUCCESSFULLY VACCINATED DURING PREVIOUS FIVE YEARS.			AVERAGE ANNUAL NUMBER OF DEATHS FROM SMALL-POX DURING PREVIOUS FIVE YEARS.			Serial No.
	Total.	Successful.	Unknown.	Primary.	Re-vaccination.		Primary.	Re-vaccination.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.			
	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
1,240	8,082	1,000	481	90·94	88·45	88·46	4·17	14·22	27,785	34·52	708	0·88	1		
8,722	6,821	2,343	8,044	94·55	71·50	88·89	12·80	48·16	25,170	35·21	84	0·12	2		
8,047	4,695	2,454	1,282	89·99	72·11	80·46	12·19	27·86	23,801	32·64	881	0·45	3		
818	9,075	6,028	1,747	97·59	82·26	42·46	2·73	19·25	27,818	34·78	219	0·27	4		
1,077	8,589	5,886	1,618	93·74	77·21	86·09	5·47	18·78	20,076	31·74	453	0·72	5		
81	159	35	51	98·93	82·41	14·18	6·24	82·08	646	18·47	7	0·20	6		
2,987	9,851	5,679	2,391	98·22	76·18	82·56	12·82	24·27	29,478	38·45	48	0·06	7		
749	7,891	4,468	1,421	97·62	69·06	80·89	2·97	18·01	29,082	31·66	508	0·55	8		
8,545	6,439	3,368	1,277	97·08	65·15	28·68	15·20	19·83	22,807	29·94	686	0·87	9		
878	7,884	3,822	1,547	90·41	65·48	85·15	5·21	20·95	17,017	32·90	498	0·95	10		
832	351	188	79	98·68	67·28	82·08	2·59	22·51	30,142	32·29	1,680	1·80	11		
1,260	1,710	1,282	276	95·69	85·91	84·85	3·45	16·14	36,811	36·17	1,584	1·51	12		
4·9	9,583	4,957	1,581	97·07	62·34	88·86	1·60	16·58	35,205	40·04	648	0·74	13		
598	9,818	6,480	1,828	98·07	81·05	41·18	2·08	18·58	31,925	38·85	275	0·33	14		
1,694	811	133	89	98·17	59·91	29·71	5·52	28·62	38,117	34·38	774	0·80	15		
1,522	11,329	7,747	1,656	95·79	80·09	89·47	4·83	14·62	37,208	40·29	414	0·45	16		
1,206	2,153	1,208	482	97·81	72·29	81·02	5·44	22·39	24,904	38·40	822	1·10	17		
722	818	411	171	97·99	84·02	28·89	3·51	21·03	20,871	30·88	878	1·28	18		
380	2,753	1,571	580	97·25	72·33	27·98	2·98	21·08	15,808	30·86	538	1·06	19		
300	2,879	2,193	254	99·20	88·54	82·55	2·03	8·82	20,228	38·93	400	0·79	20		
869	4,239	2,932	333	94·98	75·06	84·98	2·27	7·83	17,428	38·82	696	1·85	21		
812	7,289	5,889	512	98·45	88·61	53·08	2·41	7·02	17,626	51·63	184	0·48	22		
266	1,631	395	167	99·30	24·98	25·61	2·07	10·24	14,697	29·15	881	1·65	23		
4·9	2,333	1,575	852	97·77	79·51	86·75	1·27	15·09	31,660	35·62	1,169	1·80	24		
886	7,263	5,329	979	95·70	84·74	46·94	1·93	18·47	28,466	45·52	487	0·85	25		
748	15,809	6,754	2,986	97·70	54·81	86·99	3·03	19·50	37,118	45·54	278	0·84	26		
462	18,625	10,990	1,118	98·01	87·86	48·65	2·64	8·19	28,982	50·81	268	0·47	27		
746	5,278	2,727	1,253	97·53	67·79	83·00	5·20	23·75	26,091	52·20	534	1·07	28		
														-	
30,750	162,045	97,264	29,493	98·45	73·88	35·05	4·85	18·20	706,406	38·43	15,852	0·82			
1,718	18,270	11,794	2,041	97·86	72·67	...	5·98	11·17	34,587	...	...	...
120	4,443	2,816	489	98·48	70·33	40·29	2·69	9·88	6,222	35·86	10	0·06			
82,588	184,758	111,874	31,978	98·50	73·22	37·04	4·88	17·81	747,215	38·19	15,862	0·81			

vaccinated equals 4,877 which represents secondary operations.
persons of six years and over six years of age.

MARY.

AVERAGE NUMBER OF PERSONS VACCINATED BY EACH VACCINATOR.		NUMBER OF CHILDREN SUCCESSFULLY VACCINATED.		Ratio of successful vaccinations per 1,000 of population.	Total cost of Department.	Average cost of each successful case.	REMARKS
Vaccinators employed.	Persons vaccinated by each vaccinator.	Under one year	One and under six years.				
274	8,098 43	510,941	91,085	37·04	1,40,964 2 5	0 3 1	
...	...	1,157	27	...	...	...
...	
274	8,098 43	512,098	96,062	37·16	1,40,964 2 5	0 3 1	

APPENDIX TO STATEMENT No I.
**STATEMENT SHOWING THE DETAILS OF THE VACCINATION OPERATIONS PERFORMED BY THE
SPECIAL AND CANTONMENT STAFFS ACCORDING TO LOCALITIES, DURING THE
YEAR 1915-16.**

No.	District.	Name of localities.	Average number of Vaccinators employed throughout the year.	Total number of persons vaccinated.	PRIMARY VACCINATION.						RE-VACCINATION.			PERCENTAGE OF SUCCESSFUL CASES IN WHICH THE RESULTS WERE KNOWN.	PERCENTAGE OF UNKNOWN CASES TO TOTAL CASES.	No.		
					Total.	Under one year.	One year and under six years.	Six years and over six years.	Total of all ages.	Unknown.	Total.	Successful.	Unknown.	Primary.	Re-vaccination.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

THE VACCINATIONS PERFORMED BY SPECIAL STAFF ARE INCLUDED IN STATEMENT No. I.

1	Boghal (Arki) State	...	720	289	84	175	75	284	8	481	216	25	1
2	Mailog State	...	739	250	148	78	20	286	6	469	228	53	2
3	Bija	62	25	12	5	3	20	2	87	24	2	...	...	...	...	...	3
4	Kuthar	588	240	78	105	33	216	9	292	180	21	...	...	...	...	...	4
5	Bilaspur	4,327	2,549	1,188	980	181	2,249	152	1,778	922	288	...	...	...	...	...	5
6	Bahruli Tahsil	164	205	49	130	17	196	5	759	611	29	...	...	...	...	...	6
7	Ghund State	103	43	...	1	34	45	3	55	19	1	...	...	...	...	...	7
8	Keonthal	1,029	426	8	200	174	382	20	618	438	48	...	...	...	...	...	8
9	Theog	308	167	...	86	120	162	2	136	55	9	...	...	...	...	...	9
10	Madhan	283	141	...	57	75	132	7	92	47	16	...	...	...	...	...	10
11	Balsan	155	112	...	9	97	106	6	43	20	2	...	...	...	...	...	11
12	Kot Khai Tahsil	478	282	2	153	55	210	20	246	157	23	...	...	...	...	...	12
13	Kaneti State	110	71	...	23	45	68	2	89	20	7	...	...	...	...	...	13
14	Jubbal	2,203	1,295	28	842	384	1,254	33	908	563	70	...	...	...	...	...	14
15	Kumhrasain State	82	53	...	37	11	48	4	29	15	...	...	...	...	...	...	15
16	Taroch State	53	244	1	183	57	240	4	319	156	35	...	...	...	...	...	16
17	Dhadi	9	6	...	3	3	6	...	3	3	...	...	...	...	...	...	17
18	Dhami	411	197	27	158	11	196	...	214	150	20	...	...	...	...	...	18
19	Rampur Bashahr State.	564	440	109	177	26	312	113	121	69	23	...	...	...	...	...	19
20	Baghari (Solon) State	471	203	95	98	5	198	6	265	128	26	...	...	...	...	...	20
21	Vandi State	3,350	2,169	439	1,137	522	2,098	41	1,181	709	157	...	...	...	...	...	21
22	Kangra District	1,119	722	336	235	...	671	38	287	182	25	...	...	...	...	...	22
23	Ambala	432	432	378	32	...	410	16	...	...	...	...	...	...	...	...	23
24	Kalsia State	1,045	1,577	933	467	20	1,463	88	68	42	12	...	...	...	...	...	24
25	Sirmur (Nahan) State.	9,575	2,997	935	1,473	415	2,823	148	6,578	4,920	544	...	...	...	...	...	25
26	Murree Tahsil	157	156	134	17	1	152	2	1	...	...	...	...	...	...	...	26
27	Viree Town	55	24	24	10	...	34	1	1	1	...	...	...	...	...	...	27
28	Murree Cantonment	174	27	11	8	6	25	2	147	85	21	...	...	...	...	...	28
29	Kuldana	58	8	7	1	...	8	...	50	28	2	...	...	...	...	...	29
30	Lower Topa	11	1	...	1	...	1	...	10	10	...	...	...	...	...	...	30
31	Upper	31	3	...	3	2	1	6	...	28	21	...	...	...	...	...	31
32	Ghrial	6	6	3	3	2	1	6	...	...	...	...	...	...	...	...	32
33	Lahore Female Jail	140	67	7	12	48	67	...	73	51	2	...	...	...	...	...	33
34	Lahore Central	583	159	2	5	146	153	6	424	242	61	...	...	...	...	...	34
35	Lahore Borstal	341	77	6	14	54	74	2	264	199	24	...	...	...	...	...	35
36	Lahore District	1,809	1,899	1,589	128	...	1,717	77	...	...	...	...	...	...	...	...	36
37	Amritsar	2,124	1,145	814	205	2	1,021	24	1,019	557	163	...	...	...	...	...	37
38	Ferozepore	2,162	2,147	1,589	211	1	1,801	321	15	10	2	...	...	...	...	...	38
39	Gurdaspur	1,184	1,461	1,185	260	3	1,428	16	23	18	5	...	...	...	...	...	39
40	Jullundur	1,869	1,038	665	149	...	814	152	881	108	165	...	...	...	...	...	40
41	Hoshiarpur	1,027	704	538	110	...	648	43	823	188	48	...	...	...	...	...	41
42	Gujranwala	588	533	418	58	1	47	55	5	5	...	...	...	...	...	...	42
43	Sialkot	403	403	926	71	...	397	6	...	...	...	...	...	...	...	...	43
44	Ludhiana	1,082	1,343	906	194	15	1,115	190	884	221	60	...	...	...	...	...	44
45	Karnal	1,053	1,049	870	144	2	1,016	21	4	2	2	...	...	...	...	...	45
46	Gurgaon	1,278	1,067	768	176	2	946	69	211	146	15	...	...	...	...	...	46
47	Hissar	878	878	313	54	1	368	6	...	...	...	...	...	...	...	...	47
	Total	...	14	46,998	28,738	15,049	8,038	2,625	26,802	1,718	18,270	11,794	2,041	97.86	72.67	5.98	11.17	

Note.—(a) Difference between number of operations and number of persons vaccinated equals 5 which represents secondary operations.

THE VACCINATIONS PERFORMED IN CANTONMENTS BY DISTRICT STAFF ARE INCLUDED IN STATEMENT No. I.

Multan	Multan	107	104	39	39	8	81	28	3	2	...	...	...	...	...	...	...
Total	...	107	104	39	39	8	81	28	3	2	100.00	...	22.12	66.67	...	...	...

THE VACCINATION IN CANTONMENTS WHICH ENTERTAIN THEIR OWN VACCINATORS ARE SHOWN SEPARATELY IN STATEMENT No. I.

1	Ambala	Ambala	1	3,680	1,824	1,150	589	8	1,697	82	1,856	998	256	...	...	...	1
2	Jullundur	Jullundur	1	162	128	108	22	...	125	2	41	38	1	...	...	...	2
3	Ferozepore	Ferozepore	1	813	654	508	116	19	643	8	159	89	12	...	...	...	3
4	Lahore	Lahore	1	2,869	627	276	257	85	618	9	1,742	1,210	85	...	...	...	4
5	Sialkot	Sialkot	1	376	326	289	88	...	822	4	50	50	...	...	...	5	
6	Rawalpindi	Rawalpindi	2	890	706	545	181	4	630	18	184	108	59	...	...	...	6
7	Ambala	Kassauli	1	180	87	41	46	...	87	...	43	88	1	...	...	...	7
8	Sabathu	Darschali	1	116	48	19	22	2	48	...	70	45	18	...	...	...	8
9	Simla	...	256	86	10	20	4	84	1	220	184	10	...	...	...	...	9

A—VACCINE DEPARTMENT.

STATEMENT NO. II.—SHOWING THE COST OF THE DEPARTMENT IN THE PUNJAB PROVINCE DURING THE YEAR 1915-16.

B.—DISPENSARY VACCINATION.

STATEMENT No. III.—SHOWING DISPENSARY VACCINATIONS IN THE PUNJAB PROVINCE DURING THE YEAR 1915-16.

Note.—There were no special vaccinators attached to the dispensaries. Vaccinations were performed by Civil Surgeons, Assistant Surgeons, Sub-Assistant Surgeons and compounders.

COMPARATIVE STATEMENT No. IV—SHOWING THE NUMBER OF PERSONS PRIMARILY VACCINATED AND THE NUMBER OF THOSE PERSONS WHO WERE SUCCESSFULLY VACCINATED IN THE PUNJAB IN EACH OF THE UNDERMENTIONED OFFICIAL YEARS.

PERSONS PRIMARILY VACCINATED.

ESTABLISHMENT.

	1897 to 1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
Average total number. Vaccinated.	..	19,448	15,074	1,757	..	..	..	..	..	..	..	..
503,993	2,257	..	865,221	182,077	44,083	587,756	519,652	89,655	41,1280
477,629	617,888
582,019	693,410
659,606	607,909
686,927	582,111
682,087	501,104
560,023	488,661
622,211	622,211
682,094	596,410
701,700	670,697
687,629	710,994
697,629	671,188
710,997	628,010
671,261	623,683
669,286	669,286
614,376

Note.—The figures from 1897 to 1902 are taken from Annual Vaccination Reports of the Province as constituted during that period.

STATEMENT NO. V—SHOWING TOTAL NUMBER OF PRIMARY AND RE-VACCINATIONS PERFORMED AND NUMBERS INSPECTED BY CIVIL SURGEONS AND SUPERINTENDENTS OF VACCINATION OR OTHER INSPECTING OFFICERS, THE PERCENTAGES OF THOSE INSPECTED, TOGETHER WITH THE PERCENTAGES OF CASES FOUND SUCCESSFUL BY THEM, AS CONTRASTED WITH PERCENTAGES REPORTED BY THE VACCINATORS IN EACH DISTRICT OF THE PUNJAB DURING THE YEAR 1915-16.

Districts.	Total Number of Persons Vaccinated.		Total Number Inspected						Percentage of Inspections to Total Number Vaccinated.						Percentage of Cases Found Successful to Total Number Inspected.						Percentage of Success reported by Vaccinators.								
			By Civil Surgeons*.		By Superintendents of Vaccination.		By Divisional Inspectors.		By Civil Surgeons*.		By Superintendents of Vaccination.		By Divisional Inspectors.		By Civil Surgeons*.		By Superintendents of Vaccination.		By Divisional Inspectors.		Primary.		Re-vaccination.						
	Primary.		Re-vaccination.		Primary.		Re-vaccination.		Primary.		Re-vaccination.		Primary.		Re-vaccination.		Primary.		Re-vaccination.		Primary.		Re-vaccination.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25					
1 Hissar	22,541	2,216	4,00	6,77	7,52	9,644	7,52	9,223	38,14	91,83	...	90,94	38,45	...	90,94	38,45	...	90,94	38,45	...	90,94	38,45				
2 Rohriak	23,476	8,999	15,80	5,216	30,05	95,24	70,09	97,97	67,91	90,35	...	94,66	71,60	...	94,66	71,60	...	94,66	71,60	...	94,66	71,60				
3 Gurron	24,982	3,297	12,75	1,959	36,87	11,78	10,76	82,93	67,43	82,97	88,77	86,12	...	89,99	72,11	...	89,99	72,11	...	89,99	72,11					
4 Karnal	28,591	9,076	918	9,211	6,249	4,629	...	89,00	68,26	15,99	...	97,90	...	97,94	84,05	94,86	...	97,94	84,05	...	97,94	84,05				
5 Ambala	21,596	10,488	4,07	10,36	4,569	3,812	...	50,18	43,56	17,85	...	94,35	...	100,00	97,78	84,59	93,70	...	98,93	82,41	...	98,93	82,41			
6 Simla	610	527	81	435	109	6,17	5,17	72,50	20,65	31,03	39,19	17,41	...	98,95	32,11	78,13	...	98,22	78,13	...	98,22	78,13				
7 Kangra	22,518	9,851	2,396	270	10,494	3,861	6,988	1,715	10,64	2,74	43,60	36,78	...	72,59	74,53	46,78	96,91	38,31	...	96,91	38,31					
8 Hoshiarpur	25,118	7,891	3,553	512	15,891	3,549	5,332	1,672	12,116	6,87	63,27	44,98	21,23	19,92	96,10	65,87	97,04	73,52	98,01	36,45	...	98,01	36,45			
9 Jullundur	23,197	6,480	190	1,458	12,837	1,858	10,895	4,151	8,02	19,75	56,48	20,96	46,92	64,06	97,89	...	95,87	65,68	98,63	55,70	...	95,87	65,68			
10 Ludhiana	7,384	5,086	1,458	12,223	5,796	4,107	1,027	31,30	19,75	87,52	78,49	25,27	13,91	90,56	60,63	89,81	75,22	92,04	32,92	...	95,48	10,10				
11 Ferozepore	32,697	617	2,389	...	24,725	26,0	3,220	7,15	...	75,62	32,41	9,85	...	92,26	...	97,94	80,00	86,40	...	98,63	67,28	...	98,63	67,28		
12 Lahore	37,149	3,985	2,087	...	33,785	2,972	11,346	5,61	90,94	74,96	30,54	...	88,64	...	91,75	63,69	95,30	...	95,69	85,91	...	95,69	85,91			
13 Amritsar	30,560	9,553	9,457	70	19,963	6,251	4,988	240	30,98	0,73	65,28	65,57	18,02	2,52	93,74	71,43	97,02	61,83	89,42	89,42	...	97,07	62,84			
14 Gurdaspur	29,155	10,252	2,961	...	24,193	6,287	8,33	2,871	10,16	10,76	10,76	28,00	90,57	...	98,77	86,98	95,45	81,15	98,67	81,05	...	98,67	81,05			
15 Sidho-Kanho-Bihari	30,704	4,384	2	15,643	1,38	3,614	...	14,28	1,76	50,84	38,84	11,77	...	96,69	100,0	88,91	19,54	98,17	59,91	...	98,17	59,91				
16 Gujranwala	31,329	500	...	24,309	6,260	2,158	...	14,50	1,50	77,68	55,26	6,91	...	96,00	99,07	97,47	96,94	95,79	80,09	...	95,79	80,09				
17 Gujrat	23,539	2,163	5,365	216	14,111	816	2,305	12	14,32	16,03	50,69	37,90	10,00	0,56	95,75	69,90	98,58	65,58	97,38	97,38	...	97,38	97,38			
18 Shalpur	20,568	813	1,568	43	11,011	251	2,088	99	7,62	5,29	68,68	53,87	10,16	12,18	93,37	65,81	95,68	46,22	89,60	57,57	...	97,25	72,53			
19 Jhelum	12,962	2,762	1,261	...	9,860	1,407	1,456	...	9,73	...	61,82	61,82	10,76	28,00	90,57	...	98,44	88,40	88,40	...	98,44	88,40	...	98,44	88,40	
20 Rawalpindi	15,454	3,038	1,135	4,289	...	11,617	5,728	3,10	497	314	18,09	23,89	44,25	46,75	3,83	...	98,68	53,80	88,40	...	98,68	53,80	...	98,68	53,80	
21 Attock	12,946	7,289	2,344	1,705	9,761	3,105	1,240	1,204	...	4,90	18,70	76,78	76,03	9,86	...	90,02	56,39	96,02	40,40	97,77	72,28	...	97,77	72,28		
22 Mianwali	13,868	1,631	1,631	9,761	1,245	1,240	1,240	...	2,99	1,939	1,939	5,80	22,26	76,30	67,39	9,26	...	99,62	90,37	96,64	87,44	98,06	48,28	...	98,06	48,28
23 Montgomery	89,269	2,333	1,867	1,867	619	21,574	1,839	1,839	...	1,407	1,407	1,407	1,407	1,407	1,407	1,407	1,407	1,407	1,407	1,407	1,407	1,407	1,407	1,407		
24 Lyallpur	19,771	7,288	1,653	...	12,144	2,365	767		
25 Jhang	24,566	15,309	918	8,2	22,723	14,654	5,1527	3,105	497	314	18,09	23,89	44,25	46,75	3,83	...	98,62	95,72	92,82	61,56	98,45	72,28	...	98,45	72,28	
26 Multan	17,044	13,825	1,458	1,458	10,492	8,85	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371			
27 Muzaffargarh	18,270	18,270	707	707	10,664	3,781	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,371				
28 Dera Ghazi Khan	26,738	8,863	793	6,276	1,676		
Additional Deputy Sanitary Commissioner, Punjab.	185,912	68,359	11,901	450,890	112,511	100,256	16,092	10,29	6,40	67,79	60,55	15,09	8,66	92,59	95,00	71,71	92,99	95,00	69,88	92,59	95,00	69,88	95,00			
Total	664,359	185,912	68,359	11,901	450,890	112,511	100,256	16,092	10,29	6,40	67,79	60,55	15,09	8,66	92,59	95,00	71,71	92,99	95,00	69,88	92,59	95,00	69,88			

APPENDIX A:

**STATEMENT SHOWING THE NUMBER OF VACCINATIONS PERFORMED
IN MUNICIPAL TOWNS ON CHILDREN UNDER ONE YEAR OF AGE
DURING THE YEAR 1915-16.**

Towns.	Number of births during the year.	Number of deaths amongst children under one year during the year.	Number of successful vaccinations on children under one year during the year ending March 1916.	Date of extension of Vaccination Act to town.			
				1	2	3	4	5
HISSAR DISTRICT.							
Hissar	824	275	489				
Hansi	743	262	497				
Bhiwani	1,469	483	751	Act is not in force.			
Sirsa	637	218	484				
Fatehabad	48	11	42				
ROHTAK DISTRICT.							
Rohtak	1,084	285	517	22nd July 1890.			
Jhajjar	606	125	251	24th February 1909.			
Beri	419	81	180	31st July 1893.			
Gohana	269	76	184	24th February 1909.			
Bahadurgarh	289	48	150				
Sonepat	643	140	292				
GURGAON DISTRICT.							
Rewari	940	196	581	28th February 1905.			
Palwal	586	140	277	15th June 1915.			
Firozpur	267	57	129				
Hodal	866	64	114	Act is not in force.			
Ballabgarh	169	40	89				
Faizabad	209	48	70				
KARNAL DISTRICT.							
Karnal	991	284	671	23rd March 1914.			
Kaithal	684	174	878	16th December 1909.			
Panipat	1,320	290	799				
Shahabad	485	100	206	Act is not in force.			
Thanesar	147	84	61				
AMBALA DISTRICT.							
Ambala	1,087	189	560	1st October 1895.			
Jagadhri	484	150	296	7th February 1910.			
Burya	158	51	81	Act is not in force.			
Sedhaura	250	52	145				
Rupar	256	75	157				

Including inspection work of Health Officers of Simla, Lahore and Amritsar.
† Inspected by Deputy Sanitary Commissioners.

APPENDIX A--CONTINUED.

Towns.	Number of births during the year.	Number of deaths amongst children under one year during the year.	Number of successful vaccinations on children under one year during the year ending March 1916.	Date of extension of Vaccination Act to town.
1	2	3	4	5
SIMLA DISTRICT				
Simla	366	114	310 7th August 1889.
KANGRA DISTRICT.				
Kangra	103	32	55 Act is not in force.
Dharamsala	66	16	86 11th November 1898
HOSHIARPUR DISTRICT.				
Hoshiarpur	715	170	268
Khanpur	118	16	24
Hariana	202	26	55
Garhdiwala	123	23	41
Dasuya	263	38	81
Tanda-Urmair	319	59	155
Miani	202	31	89
Mukerian	180	10	80
Una	165	18	51
Anandpur	108	22	67
JULLUNDUR DISTRICT.				
Jullundur	1,944	426	1,401 9th July 1894.
Kararpur	354	8	172
Burgab	191	22	71
Rahon	244	23	105
Phillaur	169	27	78
Nurmahal	288	84	108
Nakodar	342	81	121
LUDHIANA DISTRICT				
Ludhiana	1,830	300	1,369 25th February 1907.
Jagraon	783	171	353
Raekot	314	60	201
Khanna	148	80	51
FEROZEPORE DISTRICT.				
Ferozepore	804	160	362
Zira	193	33	110
Dharmkot	212	50	141
Muktsar	442	120	171
Fazilka	624	124	288

APPENDIX A—CONTINUED.

TOWNS.	1	Number of births during the year.	Number of deaths amongst children under one year during the year.	Number of successful vaccinations on children under one year during the year ending March 1916.	Date of extension of Vaccination Act to town.	
					3	4
LAHORE DISTRICT.						
Lahore	8,023	1,927	5,631 10th August 1894.
Chunian	361	65	187 }
Khudian	141	28	69 }
Kasur	1,184	247	654 } Act is not in force.
Khem Karn	289	69	60 }
Patti	370	70	145 }
AMRITSAR DISTRICT.						
Amritsar	6,673	1,325	4,590 29th March 1887.
Majithia	265	63	145 }
Jandia'a	284	68	227 } Act is not in force.
Tarn Taran	199	43	127 }
GUR DASPUR DISTRICT.						
Gurdaspur	224	42	167 }
Dinanagar	166	38	127 } Act is not in force.
Pathankot	325	58	201 }
Dalhousie	22	8	277 November 1904.
Batala	1,594	326	1,070 }
Dera Nanak	215	45	165 } Act is not in force.
SIALKOT DISTRICT.						
Sialkot	2,823	820	1,248 16th June 1914.
Daska	258	41	171 }
Jamke	175	24	119 }
Pasrur	239	24	128 }
Zaffarwal	147	32	52 }
Narowal	252	40	118 }
Sambrial	107	11	57 }
Sahowala	150	37	84 } Act is not in force.
Begowala	167	20	92 }
Bhupalwala	168	31	56 }
Mitranwali	174	33	71 }
Badomali	94	10	68 }
Kalaswala	150	24	48 }
Daud	177	14	78 }
Chawinda	178	25	94 }

APPENDIX B—CONTINUED.

TOWNS.	Number of births during the year.	Number of deaths amongst children under one year during the year.	Number of successful vaccinations on children under one year during the year ending March 1916.	Date of extension of Vaccination Act to town.
1	2	3	4	5
GUJRANWALA DISTRICT.				
Gujranwala	1,101	259	1,011 18th October 1899.
Wasirabad	664	128	242
Eminabad	206	44	109
Kila Didar Singh	98	16	16
Akalgarkh	168	8	87
Ramnagar	161	40	57
Sohdra	215	43	40
Hafizabad	199	20	56
Khangah Dogran	50	8	31
Pindi Bhattian	169	35	90
Sangla	56	2	85
Sharakpur	165	42	74
Shahkot	46	2	27
GUJRAT DISTRICT.				
Gujrat	911	156	622 6th June 1901.
Jalalpur	467	90	839 27th May 1904.
Kunjah	281	69	112
Dinga	201	12	135 } Act is not in force.
SHAHPUR DISTRICT.				
Shahpur	152	13	62 } Act is not in force.
Sahiwal	219	48	78
Bhera	585	176	435 8th April 1908.
Mian	370	63	157 21st December 1915.
Khushab	468	82	311 13th December 1907.
Sargodha	244	35	143 9th February 1916.
JHELUM DISTRICT.				
Jhelum	449	90	352 27th April 1897.
Pind Dadan Khan	522	109	314 5th July 1897.
BAWALPINDI DISTRICT.				
Rawalpindi	1,767	484	1,323 10th August 1896.
Murree	51	18	24 14th December 1893.
ATTOCK DISTRICT.				
Pindigheb	883	65	209 } Act is not in force.
Hazro	342	76	216

APPENDIX A—CONCLUDED.

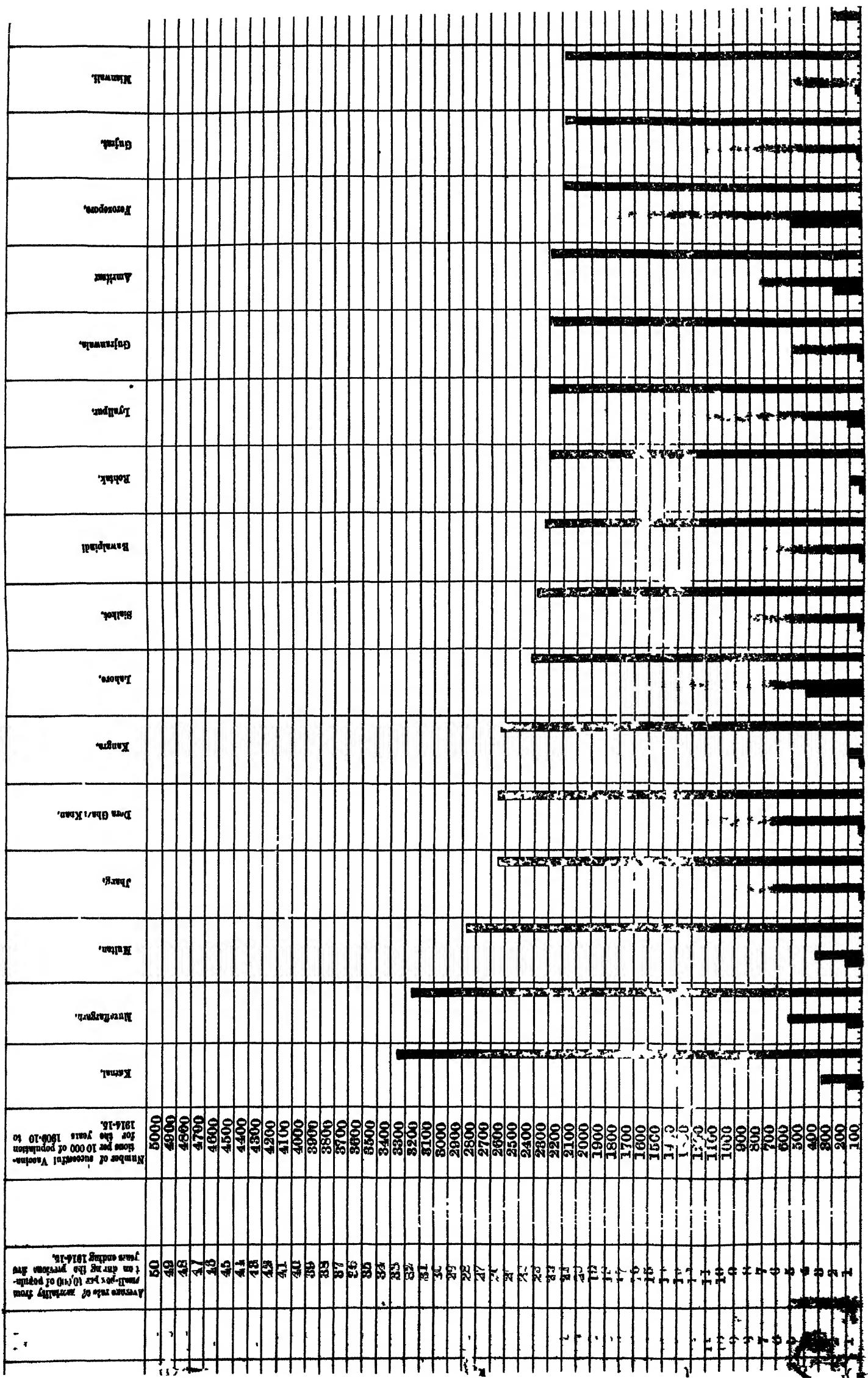
TOWNS.	Number of births during the year.	Number of deaths amongst children under one year during the year.	Number of successful vaccinations on children under one year during the year ending March 1916.	Date of extension of Vaccination Act to town.
1	2	3	4	5
MIANWALI DISTRICT.				
Mianwali	289	53	257	April 1905.
Bhakkar	287	85	158	Act is not in force.
Iza Khel	247	42	206	October 1898.
Kalabagh	270	78	152	12th February 1912.
MONTGOMERY DISTRICT.				
Montgomery	196	40	42	Act is not in force.
Kamalia	340	70	273	
Pakpattan	281	64	113	
LYALLPUR DISTRICT.				
Lyallpur	585	68	447	18th March 1914.
Gojra	49	3	54	Act is not in force.
JHANG DISTRICT.				
Jhang-Msghiana	1,368	418	950	20th March 1894.
Chiniot	952	273	524	Act is not in force.
MULTAN DISTRICT.				
Multan	8,586	886	2,128	18th January 1897.
Shujabad	253	78	153	24th February 1916.
MUZAFFARGARH DISTRICT.				
Muzaffargrah	147	45	81	10th December 1910.
Khangerh	142	37	49	Act is not in force.
Alipur	167	44	98	17th September 1914.
Leish	293	91	101	January 1899.
Karor	196	47	59	Act is not in force.
DERA GHAZI KHAN DISTRICT.				
Dera Ghazi Khan	553	95	409	18th May 1895.
Jampur	811	57	164	Act is not in force.
Dajal	274	50	208	
Rajanpur	192	45	118	
Kot Mithan	97	27	73	

APPENDIX B.

STATEMENT SHOWING THE ANNUAL NUMBER OF SUCCESSFUL VACCINATIONS AND THE ANNUAL RATIO OF DEATHS FROM SMALL-POX PER 1,000 OF POPULATION IN EACH DISTRICT OF THE PUNJAB FOR FIVE YEARS ENDING 1915-16.

No.	Districts.	1911-12.		1912-13		1913-14.		1914-15.		1915-16.		No.
		Number of successful cases.	Annual ratio of deaths from small-pox per 1,000.	Number of successful cases.	Annual ratio of deaths from small-pox per 1,000.	Number of successful cases.	Annual ratio of deaths from small-pox per 1,000.	Number of successful cases.	Annual ratio of deaths from small-pox per 1,000.	Number of successful cases.	Annual ratio of deaths from small-pox per 1,000.	
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Hissar ...	28,229	0·44	28,829	2·79	26,608	0·75	27,594	0·23	26,932	0·15	1
2	Lohatuk	25,659	0·14	28,444	0·21	27,047	0·18	25,915	0·04	27,441	0·02	2
3	Gurgaon	22,241	0·72	23,667	1·11	25,448	0·22	24,948	0·09	22,212	0·08	3
4	Karnal	24,727	0·18	29,459	0·63	30,714	0·41	29,926	0·10	33,959	0·05	4
5	Ambala	18,870	0·24	21,824	0·99	22,874	1·72	20,726	0·17	22,880	0·08	5
6	Simla	702	0·06	822	0·51	978	0·17	892	0·20	496	...	6
7	Kangra	25,252	0·04	39,698	0·15	28,635	0·07	27,917	0·01	24,961	0·002	7
8	Hoshiarpur	26,443	0·06	34,892	1·19	28,392	1·16	27,980	0·10	28,874	0·08	8
9	Jullundur	19,428	0·10	25,777	2·81	22,064	1·22	24,892	0·06	22,556	0·06	9
10	Ludhiana	18,775	0·48	19,136	2·12	18,522	1·48	18,921	0·28	18,179	0·31	10
11	Ferozepore	31,972	0·88	29,840	6·72	30,130	1·18	31,017	0·51	29,945	0·51	11
12	Lahore	47,400	0·86	35,777	4·85	35,587	1·17	35,024	0·47	34,962	0·36	12
13	Amritsar	33,215	0·32	41,722	2·18	33,863	0·83	35,097	0·21	34,166	0·21	13
14	Gurdaspur	29,684	0·09	32,271	0·69	35,110	0·74	34,519	0·04	34,246	0·09	14
15	Sialkot	30,262	0·18	38,059	2·55	32,996	1·11	31,545	0·02	28,615	0·02	15
16	Gujranwala	38,054	0·32	42,844	1·60	40,955	0·28	32,428	0·02	36,451	0·01	16
17	Gujrat	27,852	0·46	22,625	3·89	24,164	1·08	28,467	0·08	28,180	0·01	17
18	Shahpur	22,386	0·70	21,959	4·62	19,505	0·92	20,008	0·05	19,858	0·08	18
19	Jhelum	16,501	1·69	15,668	8·07	15,053	0·28	14,255	0·11	18,807	0·01	19
20	Rawalpindi	19,771	1·31	25,298	2·21	20,440	0·29	17,460	0·01	16,525	0·001	20
21	Attock	16,245	0·34	18,553	5·33	16,654	0·97	19,799	0·01	18,014	0·008	21
22	Mianwali	15,475	0·34	19,462	0·66	20,158	0·50	18,216	0·06	18,318	0·03	22
23	Montgomery	18,194	0·63	16,569	6·36	13,173	0·43	18,683	0·12	12,909	0·13	23
24	Lyallpur	38,141	0·88	38,808	5·16	28,513	0·78	31,492	0·14	32,669	0·11	24
25	Jhang	21,789	0·09	28,279	2·80	22,887	1·29	20,686	0·22	24,200	0·01	25
26	Multan	41,830	0·18	42,699	0·89	32,969	0·88	30,057	0·11	30,140	0·13	26
27	Muzaffargarh	32,591	0·25	38,401	0·95	29,780	0·90	25,151	0·10	27,708	0·06	27
28	Dera Ghazi Khan ...	26,112	0·25	46,113	3·73	28,597	1·27	15,019	0·07	15,998	0·03	28
	Total ...	7,05,800	0·89	7,98,794	2·62	7,06,811	0·80	6,78,229	0·18	6,79,596	0·10	
	Special Staff ...	26,577	...	67,130	...	39,343	...	35,702	...	38,095	...	
	Cantonment Staff ...	8,718	0·08	8,708	0·18	4,958	0·01	4,565	...	7,089	0·01	
	Dispensary Staff ...	1,063	...	7,619	...	2,679	...	1,879	...	2,284	...	
	GRAND TOTAL ...	7,42,158	0·88	8,67,251	2·59	7,53,791	0·77	7,19,875	0·12	7,27,015	0·10	

Diagram showing the death-rates from small-pox per 10,000 of population during the year 1915-16, the average rate of mortality from small-pox during the years 1915-16 and the preceding six years in each State.



of mortality from small-pox per 10,000 of population for the five years ending 1914-15, and the proportion of successful vaccinations in each of the preceding six years in each of the districts of the Punjab.

